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PATENT COOPERATION TREATY

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# PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>P31935-P0</b>	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. <b>PCT/JP2003/009990</b>	International filing date (day/month/year) <b>06 August 2003 (06.08.2003)</b>	Priority date (day/month/year) <b>06 August 2002 (06.08.2002)</b>
International Patent Classification (IPC) or national classification and IPC <b>B29B 17/02, F16L 59/06, F25D 23/06</b>		
Applicant <b>MATSUSHITA REFRIGERATION COMPANY</b>		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 8 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand <b>24 December 2003 (24.12.2003)</b>	Date of completion of this report <b>05 October 2004 (05.10.2004)</b>
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

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## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
pages \_\_\_\_\_ 1-20 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the claims:  
pages \_\_\_\_\_ 4-15, 18, 19 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_ 1-3, 16 \_\_\_\_\_, filed with the letter of \_\_\_\_\_ 01 June 2004 (01.06.2004)
- ☒ the drawings:  
pages \_\_\_\_\_ 1-11 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☒ the claims, Nos. \_\_\_\_\_ 17 \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
- ☐ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☒ not complied with for the following reasons:

(see supplemental sheet)

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☒ all parts.
- ☐ the parts relating to claims Nos. \_\_\_\_\_

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**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: IV.3

The invention that is set forth in claim 1 pertains to a method for recycling a thermal insulation member configured from a hard urethane foam and a vacuum insulation material comprising an inorganic core material, whereas the invention that is set forth in claim 16 pertains to a refrigerator.

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

## 1. Statement

Novelty (N)	Claims	1-16, 18, 19	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-16, 18, 19	NO
Industrial applicability (IA)	Claims	1-16, 18, 19	YES
	Claims		NO

## 2. Citations and explanations

- Document 1: JP 2000-291880 A (Matsushita Refrigeration Co.), 20 October 2000
- Document 2: JP 2000-291882 A (Matsushita Refrigeration Co.), 20 October 2000
- Document 3: JP 2002-079595 A (Matsushita Refrigeration Co.), 19 March 2002
- Document 4: JP 2001-349664 A (Sanyo Electric Co., Ltd.), 21 December 2001
- Document 5: JP 2002-167446 A (Nippon Steel Chemical Co., Ltd.), 11 June 2002
- Document 6: JP 51-090372 A (Kao Soap Co., Ltd.), 07 August 1976
- Document 7: JP 2002-188791 A (Matsushita Refrigeration Co.), 05 July 2002

Claims 1-7, 9, 11, 12, 14 and 15

The inventions that are set forth in claims 1-7, 9, 11, 12, 14 and 15 do not involve an inventive step in the light of documents 1-4 cited in the international search report.

(A) It would be easy for a person skilled in the art to apply the inventions disclosed in documents 1 and 2, wherein the hard urethane foam obtained from a thermal

insulation material is mixed with a predetermined ratio of an inorganic material and is recycled, to the recycling of a thermal insulation material which is configured from a hardened urethane foam and a vacuum insulation material with an inorganic core material that comprises a hard urethane foam as a compositional material. In addition, it is obviously impossible to mix in a predetermined ratio of an inorganic material without measuring the content of the inorganic material that is already present within the hard urethane to be recycled and the content of the inorganic material during mixing when implementing the recycling method; therefore, naturally, a person skilled in the art would take such measurements.

(B) It would be easy for a person skilled in the art to apply the inventions that are disclosed in documents 3 and 4, wherein impurities are screened from the hard urethane foam obtained from a thermal insulation material for recycling, to the recycling of a thermal insulation material which is configured from a hardened urethane foam and a vacuum insulation material with an inorganic core material that comprises a hard urethane foam as a compositional material. In addition, it is obviously impossible to screen the impurities from the hard urethane foam for recycling without measuring the content of inorganic materials that constitute impurities when implementing the recycling method; therefore, naturally, a person skilled in the art would take such measurements.

Furthermore, the inventions that are disclosed in documents 1, 2 and 4 pertain to the production of vacuum insulation materials.

Claims 8 and 13

The inventions that are set forth in claims 8 and 13 do not involve an inventive step in the light of document

3 and documents 5 and 6 cited in the international search report.

Refer to claim 7, above. The inventions that are disclosed in document 3 pertain to the production of composite compression-bonded plates.

In addition, it is common practice to produce plates using the urethane obtained from the thermal insulation material from a refrigerator, as disclosed in documents 5 and 6.

Claims 10, 16, 18 and 19

The inventions that are set forth in claims 10, 16 18 and 19 do not involve an inventive step in the light of documents 1-4 and 7 cited in the international search report.

In addition to the items indicated in the examination of claim 7, above, it would be easy for a person skilled in the art to conceive of combining the features disclosed in document 7, which also pertain to recycling the thermal insulation material from a refrigerator, with the inventions that are disclosed in documents 1-4, and to present desired information that is necessary for recycling.

Document 7 also discloses a feature wherein when crushing a refrigerator that contains a vacuum insulation material or vacuum insulation members and separating out the vacuum insulation material or the vacuum insulation members, the types of materials in the vacuum insulation material or the vacuum insulation members of the refrigerator are indicated and recorded.

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## VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Within the disclosure of claim 1, it is unclear whether the inorganic material in the disclosure "thermal insulation member configured from a hard urethane foam and a vacuum insulation material comprising an inorganic core material" is the same material as the inorganic material in the disclosure "inorganic material adjustment step for adjusting the content of the inorganic material."